

REMARKS

The Examiner is thanked for the Official Action of February 23, 2005. This request for reconsideration is intended to be fully responsive thereto.

Information Disclosure Statement

The Examiner suggested that the Applicant submit a 1449 listing the references submitted with the IDS of 12/31/2003. Applicant herewith submits a completed PTO/SB/08A form to be initialed by the Examiner.

Claim Objections

The Examiner objected to claims 1-8 under 35 USC 112 as being indefinite. In claim 1 the Examiner objected to the term "typical process". Claim 1 has been amended to read "conventional process" in conformance with the Examiner's recommendation. Claims 2-8 were objected to as depending upon objected to claim 1. All objections are removed with this amendment.

Rejections under 35 U.S.C. § 103(a)

The Examiner rejected claims 1-8 under 35 U.S.C. 103(a) as being unpatentable over Hsiung et al. (hereinafter Hsiung) in view of Kinlen et al. (hereinafter Kinlen). Applicant respectfully disagrees. In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious (MPEP 2141.02). Further, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings. There is no indication or suggestion to combine the Examiner's references. The Examiner directs Applicant to Kinlen, col 21 lines 43 to 51 but after review of the cite Applicant can see no motivation at this

point. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations (MPEP 3143). The prior art references cited by the Examiner do not teach or suggest all the claim limitations of the present invention.

Claim 1.

The Examiner rejected claim 1 by stating that Hsiung describes a method for fabricating an array pH sensor and a readout circuit device of said array pH sensor. The Examiner further states that Hsiung does not describe fabricating a readout circuit device but that Kinlen describes fabricating a readout circuit device and as such it would be obvious to one of ordinary skill to combine Hsiung and Kinlen. The Examiner also states that the motivation to combine the two patents is to provide acceptable drift of electrode potential and dramatically improve performance of the system and provide an electrode with constant Nernstian response.

Hsiung is based on an ion sensitive field effect transistor (ISFET). The present invention is based on the extended gate chemical sensitive field effect transistor as multi-species microprobe (J. Van Der Spiegel, I. Lauks, P. Chan and D.Babic) and the Applicant has developed a structure to **separate** the sensor and the general metal oxide semiconductor field effect transistor (specification page 1, lines 7-10; page 7, lines 20-25, page 8 line 1). This separation was adopted and used in the development of the present invention as stated in claim 1, "thereby fabricating a separate array pH sensor and detecting pH value of the solution by using said array pH sensor." Therefore, because the prior references cited by the Examiner are based on an ISFET and the present invention is based on an **extended** ISFET there can be no motivation to combine and because prior disclosure discusses a different transistor there can also be no reasonable expectation of success. Finally the prior references cannot teach or suggest all the claim limitations of the present invention because the prior references discuss a different transistor.

Claim 2

As described above the present invention and Hsiung are different in composition; therefore, the process of production and the measuring methods are different.

Claim 3

Because claim 3 depends from claim 1 and because it is directed to the production of the array pH sensor and the readout circuit device; and because claim 1 differs from the prior references the method of fabricating the present invention must be different.

Claims 4 through 8

Again, the prior reference is based on an ISFET whereas the present invention is based on an extended ISFET.

Conclusion

The present application is based on the prior art extended gate field effect transistor (EGFET) disclosed by J. Van Der Spiegel I. Lauks, P. Chan and D. Babic, "The extended gate chemical sensitive field effect transistor as multi-species microprobe," Sensors and Actuators B4, 1983, pp. 291-298, 1983. The Applicant has applied the prior art and developed a combination sensor with separated sensor and metal oxide semiconductor field effect transistor. This present invention provides a combined sensor membrane and circuit and due to the present structure the present invention will provide a separated sensor membrane and circuit that: is disposable; will decrease costs; and will increase accuracy and stability

The prior disclosure cited by the Examiner is based on an ISFET and therefore cannot be relied upon. With respect to 103 this prior disclosure does not provide a suggestion to combine the references; there is no reasonable expectation of success; and the reference does not teach or suggest all the claim limitations.

In view of the above, Applicant respectfully submits that each of claims 1

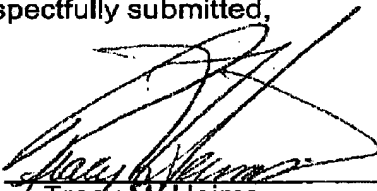
through 8 recites statutory subject matter that is novel and new, is subject matter of the present invention and is fully supported in the disclosure of the present invention, and therefore respectfully requests that claims 1 through 8 be found allowable and that this application be passed to issue. No new matter has been included.

If for any reason, the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact the Applicant's undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper has not been timely filed, the Applicant respectfully petitions for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 50-2069, referencing docket number 003-03-033.

Respectfully submitted,

By:


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